

# PATENT COOPERATION TREATY

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From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

## PCT

To:

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**10 SET. 2004**

### NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing  
(day/month/year)

10.09.2004

Applicant's or agent's file reference  
NDP 86780

#### IMPORTANT NOTIFICATION

International application No.  
PCT/EP 03/10988

International filing date (day/month/year)  
01.10.2003

Priority date (day/month/year)  
03.10.2002

Applicant  
NUOVO PIGNONE HOLDING S.P.A.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international preliminary examining authority:



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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

Applicant's or agent's file reference NDP 86780		<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA416)	
International application No. PCT/EP 03/10988	International filing date (day/month/year) 01.10.2003	Priority date (day/month/year) 03.10.2002	
International Patent Classification (IPC) or both national classification and IPC C23F1/44			
Applicant NUOVO PIGNONE HOLDING S.P.A.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 2 sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>			
Date of submission of the demand  22.03.2004		Date of completion of this report  10.09.2004	
Name and mailing address of the International preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer  Torfs, F Telephone No. +31 70 340-3037 	

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/EP 03/10988**

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-14 as originally filed

**Claims, Numbers**

1-6 received on 13.08.2004 with letter of 12.08.2004

**Drawings, Sheets**

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☒ the claims, Nos.: 7,8  
☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/EP 03/10988**

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-6
Inventive step (IS)	Yes: Claims	
	No: Claims	1-6
Industrial applicability (IA)	Yes: Claims	1-6
	No: Claims	

2. Citations and explanations

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

Reference is made to the following document:

D1: EP-A-1162286

1. The present application does not satisfy the criterion set forth in Article 33 (2) PCT because the subject-matter of claims 1-6 is not new in respect of prior art, as defined in the regulations (Rule 64 (1)-(3) PCT).

1.1 Document D1 discloses (see clauses 1,4,6,15,16,23,26,32 in columns 9 to 12) examples 2 and 4) a composition and process for removing overlay or diffusion coatings on a metal substrate, i.p. for removing coatings of MCrAlY-type with diffusion aluminide a turbine engine component. The component is immersed in a solution containing preferably 0.2-2.2 M fluorosilicic acid and 2-4 M phosphoric acid and stirred at 80°C during 4 hours (see examples) . The entire coating system (MCrAlY/aluminide) was removed, without any visible damage to the underlying substrate. It is stated clearly in example 4 that adding HCl (e.g. about 46 g/l) accelerates the process. Claim 2 and any claim referring thereto are thus not novel with regard to D1.

1.2 Even if claim 1 should describe a solution which could be regarded as a selection invention, it would not be new because the claimed range is not narrow nor is any effect shown of possible features different from the state of the art (PCT Guidelines Chapter 12, Heading 10). Moreover, it appears that claim 1 can not be regarded as a selection invention because claim 1 and claim 2 do in fact define the same solution in a different way (see page 12, paragraph 3 of the application). Claim 1 and any claim referring thereto are thus not novel with regard to D1.

2. The invention shall be considered as susceptible of industrial application because it can be used in the metal finishing industry.

13. 08. 2004

(42)

CLAIMS

1. An aqueous composition for the chemical removal of metallic surfacing present on blades of turbines comprising at least hexafluorosilicic acid and phosphoric acid  
5 whose final composition corresponds to that which can be obtained by mixing an aqueous solution of hexafluorosilicic acid at about 34% by weight in a quantity varying from 46% to 86% by volume with an aqueous solution of phosphoric acid at about 75% by weight in a quantity  
10 varying from 19% to 49% by volume, characterized in that said aqueous composition also comprises hydrochloric acid in aqueous solution at about 37% by weight added in a quantity substantially up to 15% of the volume of the bath obtained.
- 15 ~~2. The aqueous composition according to claim 1, wherein said aqueous composition also comprises hydrochloric acid in aqueous solution at about 37% added in a quantity substantially varying from 0% to 15% of the volume of the bath obtained.~~
- 20 ~~3-~~ 2. An aqueous composition for the chemical removal of metallic surfacing present on the blades of turbines comprising at least hexafluorosilicic acid and phosphoric acid in the following concentrations: hexafluorosilicic acid from 156.4 g/l to 292.4 and phosphoric acid from  
25 142.5 g/l to 367.5 g/l, characterized in that said aque-

ous composition further comprises hydrochloric acid in aqueous solution added in a concentration substantially up to 48.3 g/l.

~~4. The aqueous composition according to claim 3, wherein said aqueous composition also comprises hydrochloric acid in a concentration substantially varying from 0 to 48.3 g/l.~~

~~5. 3.~~ Use of the aqueous composition according to any of the previous claims for the removal of metallic surfacing on gas turbine blades.

~~6. 4.~~ Use of the aqueous composition according to claim ~~2~~ 1 or ~~4~~ 2 for the removal of metallic surfacing comprising nickel and/or oxidized metallic surfacing on gas turbine blades.

~~7. 5.~~ Use of the aqueous composition according to claim ~~5~~ 3 or ~~6~~ 4, wherein said composition is used at a temperature ranging from 60°C to 90°C.

~~8. 6.~~ Use of the aqueous composition according to claim ~~5~~ 3 or ~~6~~ 4, wherein said composition is used for a time ranging from 4 hours to 15 hours.